

**Virtual Meeting of the NOAA Science Advisory Board's
Environmental Information Services Working Group (EISWG)
January 4th, 2018
1:00-4:00 PM Eastern Standard Time**

The following summarizes the virtual meeting of the Environmental Information Services Working Group (EISWG) of the NOAA Science Advisory Board (SAB).

Meeting attendees included:

EISWG Members in Attendance:

Dr. John Snow, University of Oklahoma (co-Chair)
Dr. Thomas Altshuler, Teledyne Marine Systems
Mr. Ron Birk, The Aerospace Corporation
Dr. Ann Bostrom, University of Washington
Mr. Eddie Hicks, Morgan County Alabama Emergency Management Association
Dr. William Hooke, American Meteorological Society
Dr. Kevin Petty, Vaisala Inc.
Mr. Jonathan Porter, AccuWeather, Inc.
Dr. Mohan Ramamurthy, Unidata
Dr. Jen Read, University of Michigan Water Center
Dr. Cheryl Rosa, U.S. Arctic Research Commission
Dr. Justin Sharp, Sharply Focused, LLC.
Dr. Jean Vieux, Vieux, Inc.
Dr. Robert Weller, Woods Hole Oceanographic Institution
Dr. May Yuan, University of Texas at Dallas
Dr. Xubin Zeng, University of Arizona

SAB Liaison:

Mr. Robert Winokur, NOAA and the Navy (Retired)

Presenters and Guests:

Ms. Andrea Bleistein, NWS Office of Organizational Excellence,
Dr. Kandis Boyd, Deputy Director, OAR Office of Weather and Air Quality
Dr. John Cortinas, Director, OAR Office of Weather and Air Quality
Dr. Cynthia Decker, Executive Director, NOAA SAB
Mr. Craig Mclean, Assistant Administrator, Oceanic and Atmospheric Research
Mr. Peyton Robertson, Acting Director, NWS Office of Organizational Excellence
Dr. Louis Uccellini, Assistant Administrator, National Weather Service

AGENDA

JANUARY 4, 2018

1-4 PM EST

WEBINAR: <https://attendee.gotowebinar.com/register/2467305578840994305>

- 1:00 PM** **Welcome, Introductions, and Overview**
John Snow, EISWG Co-Chair
- 1:10 PM** **NWS Update**
Louis Uccellini, Assistant Administrator for NWS, NOAA
INFORMATIONAL
- 1:40 PM** **OAR Update**
Craig McLean, Assistant Administrator for OAR, NOAA
INFORMATIONAL
- 2:10 PM** **SAB Update**
Cynthia Decker, Executive Director, NOAA SAB
John Snow, EISWG Co-Chair
INFORMATIONAL
- 2:30 PM** **BREAK**
- 2:35 PM** **EISWG Membership and Terms of Reference (ToR) Update**
John Snow, EISWG Co-Chair
Jen Read, EISWG Member
DECISIONAL: EISWG members decide on membership next steps and approve ToR updates
- 3:05 PM** **Discussion of DRAFT Letter to Request from NOAA AAs**
John Snow, EISWG Co-Chair
Xubin Zeng, EISWG Member
Bill Hooke, EISWG Member
DECISIONAL: EISWG members decide on content and next steps for response letter to NOAA Assistant Administrators
- 3:55 PM** **Review of EISWG Timeline and Actions**
John Snow, EISWG Co-Chair
INFORMATIONAL
- 4:00 PM** **ADJOURN**
John Snow, EISWG Co-Chair

Welcome, Introductions, and Overview

John Snow, EISWG Co-Chair

EISWG co-chair, John Snow, started the meeting by providing an overview of the topics to be discussed.

NWS Update

Louis Uccellini, Assistant Administrator for NWS, NOAA

A NOAA National Weather Service (NWS) update was offered by Louis Uccellini.

Good News

NOAA had a remarkable run during hurricane season, delivering consistent and accurate forecasts and impact-based decision support. As an example, Florida's Governor declared a state of emergency 6.5 days before landfall for Hurricane Irma.

Budget Status

The Federal government is under a continuing resolution (CR) through January 19th; the current budget is based on FY17 omnibus. The CR is restrictive when it comes to new research and new research to operations (R2O) transition activities. As a result of the CR, the guidance given to NWS is to not move too fast and to keep all stakeholders involved while dealing with a flat budget in this environment of increasing costs.

NWS has some challenges with sustaining its workforce; NOAA has been able to hire new employees based on carry-over, but Analyze, Forecast and Support (AFS) is currently not able to fill all gaps.

Weather Act

With RDML Gallaudet on board, NOAA leadership is engaged and reviewing programming activities and budgets in particular with respect to Title II -- Sub-seasonal and Seasonal Forecast Innovation and Title IV --Federal Weather Coordination of the Weather Research and Forecasting Improvement Act of 2017 (Public Law 115-25), hereafter referred to as the Weather Act.

There has not been a line by line analysis of the budget implications of the Weather Act, or comparison to FY18 NOAA Blue Book (http://www.corporateservices.noaa.gov/nbo/fy18_bluebook/FY18-BlueBook-508.pdf). NOAA is developing a spend plan and an action plan based on the Office of Management and Budget (OMB) and Congressional budget appropriations. NOAA is interested in EISWG advice and recommendations on prioritizing the weather research initiatives given the budget boundaries. One thing to note is that Congress included \$50M funds in ORF and PAC in the Supplement for HFIP, supercomputing infrastructure and ground services for hurricane intensity and track prediction.

Impact-Based Decision Support Services (IDSS)

The focus of the IDSS program is on Title IV of the Weather Act as well as improving coordination efforts between government and private sector. NWS would like the EISWG to weigh in on issues identified while keeping the following in mind; 1) the objective is to codify where IDSS is; and 2) this program deals with safety issues.

On December 6th and 7th, NWS held its Partners Workshop in Silver Spring, MD. The workshop provided an excellent venue to exchange ideas and discuss approaches to providing IDSS across the weather enterprise.

NWS Strategic Plan

Development of the NWS Strategic Plan is ongoing with input from both internal and external players. While NWS is approaching inflection points on IDSS, NOAA is maintaining a focus on Weather Ready Nation (WRN) which is a topical area for EISWG.

The Department of Commerce (DOC) is developing a new Strategic Plan. This plan has NOAA focusing on Flood Forecasts and Mapping.

OAR Update

Craig McLean, Assistant Administrator for OAR, NOAA

A NOAA Office of Oceanic and Atmospheric Research (OAR) update was offered by Craig McLean, with focus on where OAR is under the Weather Act.

The Weather Act is beneficial in fostering long-term collaboration between NWS and OAR, while the two line offices have collaborated before, the Weather Act strengthens their collaboration. One downside is with the reporting requirements; OAR is required to transmit a number of reports requiring varied amounts of detail. NOAA has formed various writing teams to help meet the reporting requirements.

Mr. McLean made an analogy between the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which provides guidance for National Marine Fisheries Service (NMFS), and the Weather Act which now provides guidance to NWS and OAR. This helps OAR develop foci on tornadoes, sub seasonal and should help transitions, with the Joint Technology Initiative allowing beta testing. Under the Weather Act, weather is defined as variability out to two years which has been part of the Climate Program Office's research portfolio. Funds permitting, this change in the definition of weather will drive some reorganization within OAR.

Social Science

Under the Weather Act, there is a push for the integration of social science into weather forecast and warning processes. OAR currently integrates the social sciences through activities conducted

by the Sea Grant Office and the Office of Weather and Air Quality (OWAQ). One thing to keep in mind is that Sea Grant may be eliminated due to the Federal budget.

Tsunami Research

Another topic mentioned in the Weather Act is tsunami research. OAR has been active in this topic area. Mr. McLean noted that much of the agency's tsunami research is conducted at the NOAA Pacific Marine Environmental Laboratory (PMEL). PMEL's director, Chris Sabine, a driving force behind its Tsunami efforts, has left for a faculty position at University of Hawai'i. Currently OAR is seeking a strong replacement who will continue to strengthen PMEL's tsunami effort. In the interim time, Chidong Zhang is acting director of PMEL. Mr. McLean expressed that OAR would welcome EISWG's help to develop a strong applicant pool.

Budget

Even level funding means that not all objectives in the Weather Act will be addressed. In FY17, OAR had \$113M allocated toward weather research; in FY18 the projected level of funding is \$85M. In face of possible reductions, OAR needs the EISWG's help to prioritize where resources should be directed. If the EISWG can provide input by the spring/summer, this helps OAR as it starts to work on setting priorities and budgets for the upcoming year. It allows OAR to iterate and interact with the EISWG as the priorities and budgets are being set.

Positive areas and opportunities for OAR

1. New satellite products with high resolution, GOES imaging over the hemisphere with resolution approaching that of radar; lots of information to be gleaned.
2. Model progress Finite-Volume FV³ model developed under NASA/NOAA to transition to model core for NWS weather prediction; promises better performance on storm intensity than the EU model.
3. Interagency collaborations; Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR) and the National Earth System Prediction Capability (ESPC) provide opportunities and OAR should work to do more collaboration.
4. EISWG can help with community participation, looking for thoughts on Decadal Survey, on how community can work together in a more integrated way across commercial-academia-NOAA.

SAB Update

Cynthia Decker, Executive Director, NOAA SAB

John Snow, EISWG Co-Chair

Dr. Cynthia Decker, Executive Director and Designated Federal Officer for the SAB, provided the SAB update.

- Dr. Decker reminded everyone that in terms of NOAA leadership, Timothy Gallaudet is serving as Deputy Administrator and Acting Administrator. The President has nominated Barry Myers as Administrator; he has undergone hearings but has not yet been confirmed.
- At the Oct 30-31 SAB meeting, NOAA priorities were discussed: 1. Lead world in earth observation and weather prediction, have the best weather model; 2. Minimize impacts from severe weather – the Weather Act has a number of innovations operations toward this; and 3. Increase sustainable contributions of fisheries and oceans, fisheries management, with sustainable contributions to the economy. The SAB is developing its work plan in context of these priorities. Dr. Decker noted that Congress is interested in aquaculture, so part of the sustainable contributions will include aquaculture.
- At its February 20th teleconference the SAB will be discussing its work plan, and is asking the working groups to give brief commentary on their activities in the context of the NOAA priorities. Not a lot of time, about 5 minutes: What are you working on? How do you see it fitting into these priorities? Will be looking at how the SAB plan evolves and how it will dovetail with what the EISWG does in the context of NOAA priorities. Additional guidance will be sent out to the working groups about this.
- Four new SAB members were introduced (more details available on the SAB website): *Robert Grossman, University of Chicago; Chris Lenhardt, Renaissance Computing Institute (NC); Robert Rheault, East Coast Shellfish Growers Association; and Martin Storksdieck, Oregon State University.*
- Finally, the next meeting of the SAB will be the Feb 20 teleconference, followed by the April 9-10 meeting in DC, and the July 17-18 meeting in Portsmouth, NH. .

EISWG Membership and Terms of Reference (ToR) Update

John Snow, EISWG Co-Chair

Jen Read, EISWG Member

EISWG Membership

Jen Read gave an overview of the membership review. The membership of EISWG was reviewed, with an eye toward meeting the needs of the working group to address the Weather Act (PL 115-25) and identifying gaps where new members with certain expertise will need to be added for future deliberations. Prior to the meeting, a subgroup of EISWG had mapped the topical areas that were explicitly mentioned in the Weather Act to the EISWG membership matrix. Several areas were identified where gaps in committee expertise existed, including Broadcast Meteorologists, Government Emergency Managers, people with knowledge about the energy sector, as well as other application areas such as transportation, healthcare, agriculture, water resource management, insurance, and big data analytics.

Co-chair and New Member Nomination

After the above discussion on the Membership Matrix, the working group discussed the nomination of Dr. Bradley Colman as EISWG Co-Chair and member. There was strong endorsement for Colman's nomination from virtually all members of EISWG, culminating in a unanimous approval to submit his nomination to the SAB.

Terms of Reference (ToR) Update

EISWG reviewed and edited a revised ToR. The primary changes were to shorten the ToR by moving the previous Background section to be an Appendix, adding a new preamble to provide context for EISWG's Charge, and a revised Charge to reflect the new role of EISWG as written into the Weather Act of 2017 (PL 115-25). EISWG members agreed to continue the work on a revised draft for submission to the SAB in February.

Discussion of DRAFT Letter to Request from NOAA AAs

John Snow, EISWG Co-Chair

John Snow discussed the history and context of the draft letter which includes three initial steps/actions. This was followed by extensive discussions on the following key issues:

Does the existing mechanism of submitting reports (EISWG prepares a document; the document is sent to the SAB (which does not meet frequently) for review and approval; the SAB transmits the document to NOAA and its line offices) provide timely advice as requested by NOAA Assistant Administrators (AA)? Cynthia Decker clarified: The EISWG does not need to worry about the possible slow-down by SAB, as SAB can have timely teleconference if needed and justified.

Is EISWG equipped to provide recommendations? A number of EISWG members felt it's more appropriate for the group to give advice not recommendations. At the same time, AA's do want to get guidance and recommendations. NWS/OAR liaisons: EISWG represents an incredibly knowledgeable group of people. Given EISWG's limited time and resources any guidelines and recommendations, formal or informal, received will be useful.

We could ask AA's about their plan to answer their questions, and we provide feedbacks. EISWG can also come up with ideas (priorities); e.g., what technology/techniques from the private and academic sectors can be effectively transferred to NOAA? How to improve communication between NOAA and private and academic sectors? Starting from the AAs' plans or from its own ideas, the EISWG should take a collaborative and iterative process to develop inputs and recommendations.

When providing priority and budget input to the different line offices, the EISWG should sync the annual cycle of EISWG activities with planning documents prepared by OAR/NWS/NESDIS

in response to the Weather Act. For instance, EISWG advices should be provided in a timely fashion before the NOAA documents are finalized. A defined timeline of EISWG activities will be developed once the working group has heard back from the OAR/NWS liaisons (who will check with AAs' plans).

For the draft letter, the bulleted list of strategic documents should be removed, and the EISWG should consider other WGs when thinking about additional experts to help with the tasking.

Review of EISWG Timeline and Actions

John Snow, EISWG Co-Chair

Coming Deadlines

- John Cortinas will begin drafting an initial list of reports due to Congress. Target date for the list is end of April. This is within a couple of weeks of Weather Act being signed and will allow EISWG time to coordinate with SAB and NOAA Administrator;
- Also the group needs a work plan; John Snow will work with Brad Colman to draft a work plan assuming his appointment is promptly approved by SAB;
- Letter response to AAs needs to be reviewed by SAB in time for its 9-10 April, 2018 meeting. John Snow will update and refine existing letter based on feedback from the Liaisons, keeping existing content up front and then circulate for EISWG approval.
- Early February will need another call to go over and confirm appropriate process for vetting/review of our work by SAB and forward to NOAA (FACA); two hour call – watch for email from Liz to set that up.

Other Actions

- All: EISWG members will provide any additional comments on terms of reference (ToR) to Jen Read (jenread@umich.edu) and cc: John Snow (jsnow@ou.edu), Cynthia Decker (cynthia.decker@noaa.gov) and Liz Akede (elizabeth.akede@noaa.gov) by Monday, January 8.
- Jen Read will incorporate suggested changes to TOR from discussion 1/4/18 and subsequent input, circulate clean document for final review early week of 1/4/18
- Jen Read will incorporate suggested changes to membership matrix from 1/4/18 discussion and revise for members.